



Launch Mission Execution Forecast

Mission: Falcon 9 USSF-36

Issued: 20 Aug 2025 / 1200L (1600Z)

Valid: 21 Aug 2025 / DURING WINDOW



Forecast Discussion: The very large Hurricane Erin will continue moving north and eventually northeast off the eastern coast of the US and out into the open Atlantic through the remainder of the week. As it does so, it will leave behind a trailing trough and deeper moisture that will merge with a boundary dropping into the southeastern US. Prevailing flow will shift out of the west into Thursday, which will lead to the best coverage of afternoon and evening storms favoring the east side of the state including the Spaceport.

Both the primary and backup launch windows are expected to be after peak coverage wanes, though with an unsettled atmosphere isolated activity and lingering clouds may continue into at least the first portion of the window. Conditions are expected to improve through the window, though activity may linger longer on the backup day due to the proximity of the approaching boundary.

Launch Day	Probability of Violating Weather Constraints ¹						
	35% → 20%		Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules				
	Weather Conditions				Additional Risk Criteria ²		
	Weather/Visibility: Isold Showers / 7 mi.		Clouds		Upper-Level Wind Shear: Low		
		Type	Coverage	Base (ft)	Tops (ft)		
	Temp/Humidity: 81°F / 85%		Cumulus	Scattered	3,000	10,000	Booster Recovery Weather: Low
	Liftoff Winds (200'): 210° 7 - 12 mph		Cirrostratus	Scattered	25,000	30,000	Solar Activity: Low
24-Hour Delay	Probability of Violating Weather Constraints						
	35%→ 25%		Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules				
	Weather Conditions				Additional Risk Criteria		
	Weather/Visibility: Isold Showers / 7 mi.		Clouds		Upper-Level Wind Shear: Low		
		Type	Coverage	Base (ft)	Tops (ft)		
	Temp/Humidity: 81°F / 85%		Cumulus	Scattered	3,000	12,000	Booster Recovery Weather: Low
	Liftoff Winds (200'): 230° 7 - 12 mph		Cirrostratus	Broken	26,000	32,000	Solar Activity: Low
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring any random time during the launch window.						
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor. See Launch FAQ https://45thweathersquadron.nebula.spaceforce.mil/pages/launchForecastSupport.html for more information						
Next Forecast Will Be Issued		As Needed					